

Make a Sundial

In this activity you will make a sundial. Your sundial will be a simple way of telling time by using the sun's shadow cast from a pole, stick, or pencil as shown in picture 1. An actual sundial is shown in photo 2.

You Will Need

piece of cardboard about 1 foot square

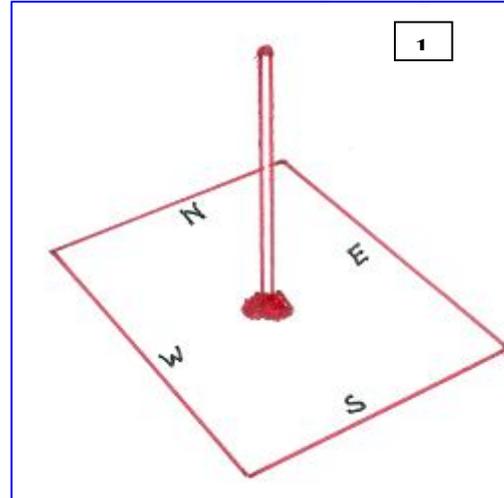
pencil or straight stick (pole)

felt marker

clay

ruler

Note: If you want to make your sundial more permanent, use a wooden base and a dowel. A dowel is a wooden or metal cylinder.



What to Do

1. Mark north, south, east, and west on the cardboard.

2. Make a hole in the center of the cardboard and insert the pole into it. If needed, place clay around the pole to hold it straight up.

3. Place the sundial on the ground or on an outdoor table so that the north side points north. You may need a compass to determine north. The sundial needs to be in a location that stays sunny all day. Use rocks on the corners of the sundial to prevent it from moving.

4. Wait until the next full hour. Then, using a ruler and marker, draw a line along the shadow from the pole to the edge of the cardboard. Write the hour on the line.

5. Repeat #4 above at each full hour.



An Indoor Sundial?

Yes, you can set up your sundial indoors. Place it on a table near a window where the sun shines through all day. Again, determine north as you did in Step 3. Repeat steps 4-5.